This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) An ink cartridge configured to be detachably attached to a printer, said ink cartridge comprising:

an ink reservoir in which an ink used for printing is kept; and

a ~~sequential access~~ storage unit storing specific information in a readable, writable, and non-volatile manner, wherein the specific information comprises an ink quantity-relating information relating to a quantity of ink kept in said ink reservoir,

wherein the storage unit is ~~sequentially~~ accessed in synchronism with a clock signal, and has an ink quantity information storage area storing the ink quantity-relating information, and wherein the ink quantity information storage area is located at a specific area that is the area located within the ~~sequential access~~ storage unit that is accessed for rewriting by said printer first before accessing for rewriting any other area within the ~~sequential access~~ storage unit ~~where another type of information is stored~~.

2. (Original) An ink cartridge in accordance with claim 1, wherein said ink reservoir comprises a specific number of ink chambers corresponding to a number of different inks used for printing, and the ink quantity information storage area has a storage capacity according to the number of different inks.

3. (Original) An ink cartridge in accordance with claim 2, wherein the ink quantity information storage area has a storage capacity of at least three bytes.

4. (Withdrawn) 4. An ink cartridge in accordance with claim 3, wherein the ink quantity-relating information is written into the ink quantity information storage area at a time of replacement of said ink cartridge and/or at a power-off time of said printer..

5. (Original) An ink cartridge in accordance with claim 3, wherein said ink reservoir has at least three ink chambers, in which at least three different color inks are kept respectively,

the ink quantity information storage area having a plurality of memory divisions, wherein the plurality of memory divisions store pieces of information relating to quantities of the at least three different color inks kept in said respective ink chambers independently,

a storage capacity of at least one byte being allocated to each of the plurality of memory divisions.

6. (Original) An ink cartridge in accordance with claim 3, wherein the ink quantity information storage area has a storage capacity of at least five bytes,

said ink reservoir having at least five ink chambers, in which at least five different color inks are kept respectively,

the ink quantity information storage area having a plurality of memory divisions, wherein the plurality of memory divisions store pieces of information relating to quantities of the at least five different color inks kept in said respective ink chambers independently,

a storage capacity of at least one byte being allocated to each of the plurality of memory divisions.

7. (Original) An ink cartridge in accordance with claim 6, wherein the at least five different color inks comprise three deep color inks and two light color inks, the two light color inks correspond to two deep colors among the three deep color inks,

in the ink quantity information storage area, the memory divisions for storing the pieces of information regarding the three deep color inks being located at a first place written first by said printer, and the memory divisions for storing the pieces of information regarding the two light color inks being located at a second place written next by said printer.

8. (Original) An ink cartridge in accordance with claim 7, wherein the three deep color inks are cyan, magenta, and yellow, and the two light color inks are light cyan and light magenta.

9. (Original) An ink cartridge in accordance with claim 8, wherein the pieces of information relating to the remaining quantities of the respective inks are written into the memory divisions at a time of replacement of said ink cartridge and/or a power-off time of said printer.

10. (Cancelled).

11. (Previously Presented) An ink cartridge in accordance with any one of claims 1 through 9, wherein said storage unit has a plurality of storage areas, and

the ink quantity information storage area is a first storage area located at a head of the plurality of storage areas included in said storage unit.

12. (Previously Presented) An ink cartridge in accordance with any one of claims 1 through 9, wherein said storage unit has a plurality of storage areas,

the ink quantity information storage area is a last storage area located at an end of the plurality of storage areas included in said storage unit.

13. (Original) An ink cartridge in accordance with claim 12, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink reservoir.

14. (Original) An ink cartridge in accordance with claim 12, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink reservoir.

15. (Currently Amended) An ink cartridge configured to be detachably attached to a printer, said ink cartridge comprising:

an ink reservoir in which an ink used for printing is kept; and

a ~~sequential access~~ storage unit storing information in a readable, writable, and non-volatile manner and being ~~sequentially~~ accessed in synchronism with a clock signal, said storage unit having a first storage area, in which a plurality of read only information is stored, and a second storage area, which is the area located within the storage unit that stores rewritable information relating to a quantity of ink kept in said ink reservoir and is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage unit.

16. (Original) An ink cartridge in accordance with claim 15, wherein the rewritable information stored in the second storage area comprises a piece of information on a remaining quantity of ink in said ink reservoir, wherein the piece of information on the remaining quantity of ink is calculated by said printer from an amount of ink consumption used for printing.

17. (Original) An ink cartridge in accordance with claim 15, wherein said ink reservoir has a plurality of ink chambers, in which a plurality of different color inks are kept respectively,

wherein the rewritable information stored in the second storage area comprises plural pieces of information on remaining quantities of the different color inks kept in the respective ink chambers, and wherein the plural pieces of information on remaining quantities of the different color inks are calculated by said printer.

18. (Original) An ink cartridge in accordance with claim 15, wherein the rewritable information stored in the second storage area comprises a piece of information on an amount of ink consumption with regard to said ink reservoir, which is obtained from an amount of ink consumption used for printing.

19. (Original) An ink cartridge in accordance with claim 18, wherein the piece of information on the amount of ink consumption takes an initial value in a range of zero to a predetermined value.

20. (Original) An ink cartridge in accordance with claim 17, wherein the second storage area has at least two memory divisions, into which a latest piece of information on the remaining quantity of ink is written sequentially.

21-22. (Cancelled).

23. (Previously Presented) An ink cartridge in accordance with any one of claims 1 through 9 and 15 through 20, wherein said storage unit is an EEPROM.

24. (Withdrawn) An ink cartridge in accordance with any one of claims 1 through 9 and 15 through 20, wherein said storage unit has format information relating to items of information stored therein.

25. (Withdrawn) An ink cartridge in accordance with claim 24, wherein the format information is registered in a head area of said storage unit.

26. (Withdrawn) An ink cartridge configured to be detachably attached to a printer, said ink cartridge comprising:

an ink reservoir in which an ink used for printing is kept; and

a storage unit having a plurality of ink quantity information memory divisions and a plurality of write complete information storage areas, and the storage unit storing specific information in a readable, writable, and non-volatile manner,

wherein the specific information comprises information relating to a quantity of ink kept in said ink reservoir, wherein the plurality of ink quantity information memory divisions store the ink quantity-relating information, and wherein the plurality of write complete information storage areas respectively correspond to the plurality of ink quantity information memory divisions and in each of which write complete information is registered when a writing operation into the corresponding ink quantity information memory division is completed.

27. (Withdrawn) An ink cartridge in accordance with claim 26, said ink cartridge comprising:

a plurality of ink reservoirs, in which a plurality of inks are kept respectively; and

a plurality of ink quantity information memory divisions and a plurality of write complete information storage areas provided for each of said plurality of ink reservoirs.

28. (Withdrawn) An ink cartridge in accordance with claim 27, wherein said storage unit has two ink quantity information memory divisions, and each write complete information storage area is located following an end-of-writing position in each, of the ink quantity information memory divisions.

29. (Withdrawn) An ink cartridge in accordance with claim 28, wherein a predetermined flag is written into each of the write complete information storage areas when the writing operation has been completed in the corresponding ink quantity information memory division, and

the predetermined flag has different initial values with regard to the respective write complete information storage areas.

30. (Withdrawn) An ink cartridge in accordance with claim 28, wherein a predetermined flag is written into each of the write complete information storage areas when the writing operation has been completed in the corresponding ink quantity information memory division, and

the predetermined flag has an identical initial value with regard to the respective write complete information storage areas.

31. (Withdrawn) An ink cartridge in accordance with claim 30, wherein the ink quantity information memory divisions are included in a specific area of said storage unit that is written first by said printer.

32. (Withdrawn) An ink cartridge in accordance with claim 31, wherein said storage unit is sequentially accessed in synchronism with a clock signal.

33. (Withdrawn) An ink-cartridge in accordance with claim 32, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink cartridge.

34. (Withdrawn) An ink cartridge in accordance with claim 32, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink cartridge.

35. (Currently Amended) A method of writing plural pieces of specific information into an ink cartridge, said ink cartridge being configured to be detachably attached to a printer and having a ~~sequential access~~ storage element, said method comprising the steps of:

(a) receiving the plural pieces of specific information that are to be written into said storage element by said printer, wherein the plural pieces of specific information comprises information relating to a quantity of ink kept in said ink cartridge and other information; and

(b) rewriting the ink quantity-relating information into said storage element, preferentially over the other pieces of specific information at an area within the storage element that is the area located within the storage element that is accessed for rewriting first before accessing for rewriting any other area within the storage element.

36. (Original) A method in accordance with claim 35, wherein the writing operation of the ink quantity-relating information into said storage element in said step (b) is

carried out at a time of replacement of said ink cartridge and/or at a power-off time of said printer.

37. (Original) A method in accordance with claim 35 further comprising the step of:

(c) arranging the plural pieces of specific information in a certain sequence that allows the ink quantity-relating information to be located in a specific storage capacity from a head, which is determined according to a specific number of different inks,

wherein the step (b) writes the plural pieces of specific information into said storage element in the arranged sequence.

38. (Original) A method in accordance with claim 37 further comprising the step of:

(c-1) arranging the plural pieces of specific information in a certain sequence that allows the pieces of information relating to the quantities of the at least three different color inks to be located in a storage capacity of at least three bytes from a head,

wherein the step (b) writes the plural pieces of information into said storage element in the arranged sequence.

39. (Original) A method in accordance with claim 37 further comprising the step of:

arranging the plural pieces of specific information in a certain sequence that allows the pieces of information relating to the quantities of the at least five different color inks to be located in a storage capacity of at least five bytes from a head,

wherein the step (b) writes the plural pieces of information into said storage element in the arranged sequence.

40. (Original) A method in accordance with claim 39, wherein the at least five different color inks comprise three deep color inks and two light color inks, which correspond to two deep colors among the three deep color inks,

the plural pieces of specific information being arranged in said step (c-2) in such a manner that the pieces of information regarding the three deep color inks are located prior to the pieces of information regarding the two light color inks.

41. (Original) A method in accordance with claim 40, wherein the three deep color inks are cyan, magenta, and yellow, and the two light color inks are light cyan and light magenta.

42. (Original) A method in accordance with claim 41, wherein the plural pieces of specific information are written into said storage element by sequential accesses.

43. (Original) A method in accordance with claim 42, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink cartridge.

44. (Original) A method in accordance with claim 42, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink cartridge.

45. (Withdrawn) A method of writing specific information into an ink cartridge, said ink cartridge being configured to be detachably attached to a printer and having a storage element, said method comprising the steps of:

(a) providing the specific information that is to be written into said storage element by said printer, the specific information comprising information relating to a quantity of ink kept in said ink cartridge;

(b) writing the ink quantity-relating information into a plurality of ink quantity information memory divisions, which are included in- said storage element; and

(c) writing write complete information into a write complete information storage area when the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions has been completed, wherein the write complete information storage area is provided corresponding to each of the ink quantity information memory divisions in said storage element.

46. (Withdrawn) A method in accordance with claim 45, said method further comprising the step of:

(d) determining whether the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions in said step (b) has been carried out properly, based on values of the ink quantity-relating information written in the ink

quantity information memory divisions and values of the write complete information written in the write complete information storage areas.

47. (Withdrawn) A method of writing specific information into an ink cartridge, said ink cartridge being configured to be detachably attached to a printer and having a storage element, said method comprising the steps of:

(a) providing the specific information that is to be written into said storage element by said printer, the specific information comprising information relating to a quantity of ink kept in said ink cartridge;

(b) writing first ink quantity-relating information into a first ink quantity information memory division, which is included in said storage element;

(c) writing first write complete information into a first write complete information storage area when the writing operation of the first ink quantity-relating information into the first ink quantity information memory division has been completed, wherein the first write complete. information storage area is provided corresponding to the first ink quantity information memory division in said storage element;

(d) writing second ink quantity-relating information into a second ink quantity information memory division after the writing operation of the first write complete information into the first write complete information storage area has been completed, wherein the second ink quantity information memory division is included in said storage element; and

(e) writing second write complete information into a second write complete information storage area when the writing operation of the second ink quantity-relating

information into the second ink quantity information memory division has been completed, wherein the second write complete information storage area is provided corresponding to the second ink quantity information memory division in said storage element.

48. (Withdrawn) A method in accordance with claim 47, said method further comprising the step of:

(f) determining whether the writing operations of the first ink quantity-relating information and the second ink quantity-relating information respectively into the first and second ink quantity information memory

divisions in said steps (b) and (d) have been carried out properly, based on values of the first ink quantity-relating information and the second ink quantity-relating information written in the first and second ink quantity information memory divisions and values of the first write complete information and second write complete information written in the first and second write complete information storage areas.

49. (Withdrawn) A method in accordance with claim 48, wherein said step (f) determines that the writing operations of the first ink quantity-relating information and the second ink quantity-relating information respectively into the first and second ink quantity information memory divisions have been carried out properly, in the case where the first ink quantity-relating information stored in the first ink quantity information memory division coincides with the second ink quantity-relating information stored in the second ink quantity information memory division.

50. (Withdrawn) A method in accordance with claim 49, wherein the first write complete information and the second write complete information have a certain combination of preset initial values,

said method further comprising the step of:

(g) identifying a combination of a current value of the first write complete information with a current value of the second write complete information, in the case where the first ink quantity-relating information stored in the first ink quantity information memory division does not coincide with the second ink quantity-relating information stored in the second ink quantity information memory division,

wherein said step (f) determines that the writing operation of the first ink quantity-relating information into the first ink quantity information memory division has been carried out properly, in the case where the combination of the current values of the first write complete information and the second write complete information is different from the certain combination of the preset initial values.

51. (Withdrawn) A method in accordance with claim 49, wherein the first write complete information and the second write complete information have a certain combination of preset initial values,

said method further comprising the step of:

(g) identifying a combination of a current value of the first write complete information with a current value of the second write complete information, in the case where the first ink quantity-relating information stored in the first ink quantity information memory

division does not coincide with the second ink quantity-relating information stored in the second ink quantity information memory division,

wherein said step (f) determines that the writing operation of the first ink quantity-relating information into the first ink quantity information memory division has not been carried out properly, in the case where the combination of the current values of the first write complete information and the second write complete information is identical with the certain combination of the preset initial values.

52. (Withdrawn) A method in accordance with claim 50 further comprising the step of:

(h) writing the first ink quantity-relating information into the second ink quantity information memory division.

53. (Withdrawn) A method in accordance with claim 52, wherein the first write complete information and the second write complete information are flags.

54. (Withdrawn) A printer, to which an ink cartridge in accordance with any one of claims 1 through 9 and 15 through 20 is detachably attached, said printer comprising:

a storage device that stores plural pieces of specific information,

wherein the plural pieces of specific information comprises information relating to a quantity of ink kept in said ink cartridge; and a writing unit that writes the ink quantity-

relating information into the ink quantity information storage area of said ink cartridge, preferentially over the other pieces of specific information.

55. (Currently Amended) An ink jet printer comprising an ink cartridge, which is detachably attached to a printer main body and in which ink is kept, and said printer main body that causes the ink kept in said ink cartridge to be ejected from a print head to a printing medium, so as to implement printing on said printing medium,

wherein said ink cartridge comprises a storage device ~~of sequential access type~~, said storage device comprising a storage unit and an address counter that carries out either one of a count-up operation and a count-down operation in response to a clock signal in the course of ~~data~~information transmission between said storage unit and said printer main body,

said storage unit included in said storage device comprises a first storage area, in which read only ~~data are~~information is stored and which is only read by said printer main body, and a second storage area, in which rewritable ~~data are~~information is stored and which is the area located within the storage device that is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage device,

said ink jet printer has ~~a data~~an information input-output unit that carries out reading and writing operations in response to a clock signal.

56. (Currently Amended) An ink jet printer in accordance with claim 55, wherein the rewritable ~~data~~ information stored in the second storage area comprises ~~data~~information

relating to a remaining quantity of ink in said ink cartridge, which is calculated by said printer main body from an amount of ink consumption used by said print head.

57. (Currently Amended) An ink jet printer in accordance with claim 56, wherein said ink cartridge comprises a plurality of ink chambers, in which a plurality of different color inks are kept respectively,

the rewritable ~~data~~information stored in the second storage area comprising ~~data~~information relating to remaining quantities of the different color inks kept in the respective ink chambers, which are calculated by said printer main body.

58. (Currently Amended) An ink jet printer in accordance with claim 57, wherein the second storage area comprises at least two memory divisions, into which latest ~~data~~information relating to the remaining quantity of ink are sequentially written.

59. (Withdrawn) An ink jet printer in accordance with claim 58, wherein the data relating to the remaining quantity of ink are written after a power-off operation of said printer main body.

60. (Withdrawn) An ink jet printer in accordance with claim 59, wherein the rewritable data stored in the second storage area comprises at least one selected among data regarding a time period elapsing after unsealing said ink cartridge and data regarding a frequency of attachment and detachment of said ink cartridge to and from said printer main body, both the

elapsing time period and the frequency of attachment and detachment being measured by said printer main body.

61. (Withdrawn) An ink jet printer in accordance with claim 60, wherein the read only data stored in the first storage area comprises at least one selected among data regarding a year, month, and date of manufacture of said ink cartridge, data regarding a type of ink stored in said ink cartridge, and data regarding a capacity of said ink cartridge.

62. (Withdrawn) An ink jet printer in accordance with claim 61, wherein said storage device is an EEPROM.

63. (Withdrawn) A printer, to which an ink cartridge in accordance with any one of claims 26 through 34 is detachably attached, said printer comprising:

a storage device that stores specific information that is to be written into said ink cartridge, wherein the specific information comprises information relating to a quantity of ink kept in said ink cartridge;

an ink quantity information writing unit that writes the ink quantity-relating information into a plurality of ink quantity information memory divisions, which are included in said storage device; and

a write complete information writing unit writing write complete information into a write complete information storage area when the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions has been completed,

wherein the write complete information storage area is provided corresponding to each of the ink quantity information memory divisions in said storage device.

64. (Withdrawn) A printer in accordance with claim 63 further comprising:

a determination unit that determines whether or not the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions has been carried out properly, based on values of the ink quantity-relating information written in the ink quantity information memory divisions and values of the write complete information written in the write complete information storage areas.

65. (Withdrawn) A printer, to which an ink cartridge in accordance with any one of claims 26 through 34 is detachably attached, said printer comprising:

a storage device that stares specific information that is to be written into said ink cartridge, wherein the specific information comprises information relating to a quantity of ink kept in said ink cartridge;

a first ink quantity information writing unit that writes first ink quantity-relating information into a first ink quantity information memory division, which is included in said storage device;

a first write complete information writing unit that writes first write complete information into a. first write complete information storage area when the writing operation of the first ink quantity-relating information into the first ink quantity information memory division

has been completed, wherein the first write complete information storage area is provided corresponding to the first ink quantity information memory division in said storage device;

a second ink quantity information writing unit that writes second ink quantity-relating information into a second ink quantity information memory division following the writing operation of the first write complete information into the first write complete information storage area has been completed, wherein second ink quantity information memory division is included in said storage device; and

a second write complete information writing unit that writes second write complete information into a second write complete information storage area when the writing operation of the second ink quantity-relating information into the second ink quantity information memory division has been completed, wherein the second write complete information storage area is provided corresponding to the second ink quantity information memory division in said storage device.

66. (Withdrawn) A printer in accordance with claim 65 further comprising:

a determination unit that determines whether or not the writing operations of the first ink quantity-relating information and the second ink quantity-relating information respectively into the first and second ink quantity information memory divisions have been carried out properly, based on values of the first ink quantity-relating information and the second ink quantity-relating information written in the first and second ink quantity information memory divisions and values of the first write complete information and second write complete information written in the first and second write complete information storage areas.

67. (Withdrawn) A printer in accordance with claim 66, wherein said determination unit determines that the writing operations of the first ink quantity-relating information and the second ink quantity-relating information respectively into the first and second ink quantity information memory divisions have been carried out properly, in the case where the first ink quantity-relating information stored in the first ink quantity information memory division coincides with the second ink quantity-relating information stored in the second ink quantity information memory division.

68. (Withdrawn) A printer in accordance with claim 67, wherein the first write complete information and the second write complete information have a certain combination of preset initial values,

said printer further comprising;

an identification unit that identifies a combination of a current value of the first write complete information with a current value of the second write complete information, in the case where the first ink quantity-relating information stored in the first ink quantity information memory division does not coincide with the second ink quantity-relating information stored in the second ink quantity information memory division,

said determination unit determining that the writing operation of the first ink quantity-relating information into the first ink quantity information memory division has been carried out properly, in the case where the combination of the current values of the first write complete information and the second write complete information is different from the certain combination of the preset initial values.

69. (Withdrawn) A printer in accordance with claim 67, wherein the first write complete information and the second write complete information have a certain combination of preset initial values,

said printer further comprising:

an identification unit that identifies a combination of a current value of the first write complete information with a current value of the second write complete information, in the case where the first ink quantity-relating information stored in the first ink quantity information memory division does not coincide with the second ink quantity-relating information stored in the second ink quantity information memory division,

said determination unit determining that the writing operation of the first ink quantity-relating information into the first ink quantity information memory division has not been carried out properly, in the case where the combination of the current values of the first write complete information and the second write complete information is identical with the certain combination of the preset initial values.

70. (Withdrawn) A printer in accordance with claim 69, wherein said first ink quantity information writing unit and said second ink quantity information writing unit preferentially carry out the writing operations into the first ink quantity information memory division and the second ink quantity information memory division in said storage device, respectively.

71. (Withdrawn) A printer in accordance with claim 70, wherein the first write complete information and the second write complete information are flags.

72. (Currently Amended) A storage device mounted on an ink cartridge, which is configured to be detachably attached to a printer, said storage device comprising:

an address counter that outputs a count in response to a clock signal output from said printer; and

a storage element that is ~~sequentially~~ accessed based on the count output from said address counter and has a storage area, in which plural pieces of specific information are stored in a readable, writable, rewritable and non-volatile manner at an area storing the specific information and located within the storage element that is accessed for rewriting by said printer first before accessing for rewriting any other area within the storage element,

wherein the specific information relates to a quantity of ink kept in the ink cartridge.

73. (Previously Presented) A storage device in accordance with claim 72, wherein the storage area has a first storage area and a second storage area, wherein the first storage area stores a plurality of read only information, and wherein the second storage area is arranged at a place accessed for rewriting prior to the first storage area.

74. (Original) A storage device in accordance with claim 72, wherein the storage area has an ink quantity information storage area, in which information relating to a quantity of

ink kept in said ink cartridge is stored and which is included in a specific area written first by said printer.

75. (Original) A storage device in accordance with claim 74, wherein said storage element stores format information relating to items of information stored therein.

76. (Original) A storage device in accordance with claim 75, wherein the format information is registered in a head area of said storage element.

77. (Original) A storage device in accordance with claim 76, said storage device is an EEPROM.

78. (Withdrawn) A storage device mounted on an ink cartridge, which is configured to be detachably attached to a printer, said storage device comprising:

a storage element having a plurality of ink quantity information memory divisions and a plurality of write complete information storage areas, and storing specific information in a readable, writable, and non-volatile manner,

wherein the specific information comprises information relating to a quantity of ink kept in said ink cartridge, wherein the plurality of ink quantity information memory divisions stores the ink quantity-relating information, and wherein the plurality of write complete information storage areas respectively correspond to the plurality of ink quantity information memory divisions and in each of which write complete information is registered when a writing operation into the corresponding ink quantity information memory division is completed.

79. (Withdrawn) A storage device in accordance with claim 78, wherein said ink cartridge comprises a plurality of ink reservoirs, in which a plurality of inks are kept respectively, and

said storage element comprises a plurality of ink quantity information memory divisions and a plurality of write complete information storage areas provided for each of said plurality of ink reservoirs.

80. (Withdrawn) A storage device in accordance with claim 79, wherein said storage element has two ink quantity information memory divisions, and each write complete information storage area is located after an end-of-writing position in each of the ink quantity information memory divisions.

81. (Withdrawn) A storage device in accordance with claim 80, wherein a predetermined flag is written into each of the write complete information storage areas when the writing operation has been completed in the corresponding ink quantity information memory division, and

the predetermined flag has different initial values with regard to the respective write complete information storage areas.

82. (Withdrawn) A storage device in accordance with claim 80, wherein a predetermined flag is written into each of the write complete information storage areas when the

writing operation has been completed in the corresponding ink quantity information memory division, and

the predetermined flag has an identical initial value with regard to the respective write complete information storage areas.

83. (Withdrawn) A storage device in accordance with claim 82, wherein the ink quantity information memory divisions are included in a specific area of said storage element that is written first by said printer.

84. (Withdrawn) A storage device in accordance with claim 83, said storage device further comprising:

an address counter that outputs a count in response to a clock signal output from said printer,

wherein said storage element is sequentially accessed, based on the count output from said address counter.

85. (Withdrawn) A storage device in accordance with claim 84, wherein the ink quantity-relating information regards a remaining quantity of ink in said ink cartridge.

86. (Withdrawn) A storage device in accordance with claim 84, wherein the ink quantity-relating information regards a cumulative amount of ink consumption with regard to said ink cartridge.

87. (Withdrawn) A computer-readable medium, in which a program is recorded., said program being used to write specific information into an ink cartridge having a storage element, the specific information comprising information relating to a quantity of ink kept in said ink cartridge,

said program comprising:

a program code that causes a computer to write the ink quantity-relating information into a plurality of ink quantity information memory divisions, which are included in said storage element; and a program code that causes the computer to write write-complete information into a write complete information storage area, which is provided corresponding to each of the ink quantity information memory divisions in said storage element, when the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions has been completed.

88. (Withdrawn) A computer-readable medium in accordance with claim 87, said program further comprising:

a program code that causes the computer to determine whether or not the writing operation of the ink quantity-relating information into each of the ink quantity information memory divisions has been carried out properly, based on values of the ink quantity-relating information written in the ink quantity information memory divisions and values of the write complete information written in the write complete information storage areas.

89. (Withdrawn) An ink cartridge having an ink reservoir in which an ink used for printing is kept, said ink cartridge comprising:

an address counter that outputs a count in response to an input clock signal; and

a storage element that is sequentially accessed based on the count output from said address counter, said storage element storing plural pieces of specific information in a readable, writable, and non-volatile manner,

wherein a certain piece of information, which is updated in relation to the ink kept in said ink reservoir, is stored in a specific area of said storage element that is read first using a default of the count.

90. (Withdrawn) An ink cartridge in accordance with claim 89, wherein the certain piece of updated information regards a remaining quantity of ink.

91. (Withdrawn) An ink cartridge in accordance with claim 89, wherein the certain piece of updated information regards an amount of ink consumption.

92. (Withdrawn) An ink cartridge in accordance with claim 91, wherein the amount of ink consumption has an initial value in a range of zero to a predetermined value.

93. (Withdrawn) An ink cartridge in accordance with claim 92, wherein the predetermined value includes 90.

94. (Previously Presented) An ink cartridge according to claim 1, wherein the ink quantity-relating information is written in the storage area before other information is written in the storage area.

95. (Previously Presented) An ink cartridge according to claim 1, wherein when the printer reads information from the ink cartridge, the printer accesses the ink quantity information storage area

96. (Previously Presented) An ink cartridge according to claim 1, wherein when the printer reads information from the ink cartridge, the printer accesses the ink quantity information storage area before accessing other portions of the storage unit.

97. (Previously Presented) An ink cartridge according to claim 1, wherein when the printer reads information from the ink cartridge, the printer accesses the ink quantity information storage area after accessing another portion of the storage unit.

98. (Currently Amended) An ink cartridge configured to be detachably mountable on a printer, comprising:

an ink reservoir for keeping ink; and

a non-volatile ~~sequential access~~ memory being ~~sequentially~~ accessed from an access start position in synchronism with a clock signal, the memory having a first memory area for storing ~~data~~information not to be updated according to use of the ink cartridge and a second memory area for storing ~~data~~information to be updated according to use of the ink cartridge,

wherein the second memory area has a specific area for storing ink quantity ~~data~~information related to consumption of the ink, the specific area being located at a front end of the second memory area which is to be written first ~~in writing data to~~before accessing for rewriting any other area within the second memory area.

99. (Previously Presented) An ink cartridge in accordance with claim 98, wherein the second memory area is located at a first half of an entire memory space of the non-volatile sequential access memory.

100. (Currently Amended) An ink cartridge configured to be detachably attached to an ink-jet printer, comprising:

an ink storage reservoir; and

a non-volatile ~~sequential access~~ storage element that stores ~~data~~information, the storage element having;

a first storage area for storing read-only ~~data~~information, and

a second storage area for storing rewritable ~~data~~information pertaining to ink-quantity related information, wherein the second storage area is accessed for rewriting by the printer first before accessing for rewriting any other area within the storage element.

101. (Previously Presented) An ink cartridge according to claim 100, wherein the second storage area is closer to a start address for being accessed by said printer in the storage device than the first storage area.

102. (Previously Presented) An ink cartridge according to claim 100, wherein the ink-quantity related information reflects a quantity of ink remaining in the ink storage reservoir.

103. (Currently Amended) An ink cartridge according to claim 100, wherein the read-only ~~data~~information reflects at least one of a time at which the ink cartridge was unsealed, a version of the ~~data~~information stored, a type of ink contained in the ink storage reservoir, a time at which the ink cartridge was manufactured, a serial number of the ink cartridge, and an indication as to whether the ink cartridge is new or recycled.

104. (Currently Amended) An ink cartridge according to claim 100, wherein a maximum amount of the first ~~data~~information that the first storage area can store is equal to a maximum amount of the second ~~data~~information that the second storage area can store.

105. (Currently Amended) An ink cartridge according to claim 100, wherein at least one of the read-only ~~data~~information and the rewritable ~~data~~information comprises a plurality of ~~data~~information records.

106. (Currently Amended) An ink cartridge according to claim 100, wherein a first said ~~data~~information record has a first size and a second said ~~data~~information record has a second size, and the first and second sizes are different.

107. (Previously Presented) An ink cartridge according to claim 100, wherein the ink-quantity related information reflects an amount of ink consumption in the ink storage reservoir, said amount of ink consumption having an initial value in a range from zero to a predetermined value.

108. (Currently Amended) A method of providing ~~a plurality of data~~information in an ink cartridge that is configured to be detachably mountable on a printer, the ink cartridge having a non-volatile ~~sequential access~~ memory, comprising the steps of:

first, storing read-only ~~data~~information in a first storage area of the memory; and

second, storing rewritable ~~data~~information, pertaining to ink-quantity related information at a second storage area of the memory, wherein the second storage area is accessed for rewriting by said printer first before accessing for rewriting any other area within the memory.

109. (Previously Presented) A method according to claim 108, wherein the ink-quantity related information reflects a quantity of ink contained in the ink cartridge.

110. (Currently Amended) A method according to claim 108, wherein the read-only ~~data~~information reflects at least one of a time at which the ink cartridge was unsealed, a

version of the ~~data~~information stored, a type of ink contained in the ink storage reservoir, a time at which the ink cartridge was manufactured, a serial number of the ink cartridge, and an indication as to whether the ink cartridge is new or recycled.

111. (Currently Amended) A method according to claim 108, wherein a maximum amount of the read-only ~~data~~information that is stored is equal to a maximum amount of the rewritable ~~data~~information that is stored.

112. (Currently Amended) A method according to claim 108, wherein at least one of the read-only ~~data~~information and the rewritable ~~data~~information comprises a plurality of ~~data~~information records.

113. (Currently Amended) A method according to claim 112, wherein a first said ~~data~~information record has a first size and a second said ~~data~~information record has a second size, and the first and second sizes are different.

114. (Currently Amended) A method of retrieving ~~data~~information from an ink cartridge that is configured to be detachably mountable on a printer, the ink cartridge having a non-volatile ~~sequential access~~ memory, the memory containing read-only ~~data~~information at a first address and rewritable ~~data~~information at a second address in the memory, wherein the second address is closer to a beginning of the ~~storage device~~memory than the first address, comprising the steps of:

providing ink quantity information in the second address before other pieces of specific information at an area within the memory that is accessed for rewriting by the printer first before accessing for rewriting any other area within the memory;

reading the ~~second data~~ink quantity information without reading the ~~first~~other ~~data~~information.